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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,755

09/07/2005

Qi Zhao

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MYERS BIGEL SIBLEY & SAJOVEC
PO BOX 37428
RALEIGH, NC 27627

EXAMINER

CHEN, VIVIAN

ART UNIT

PAPER NUMBER

1787

MAIL DATE

DELIVERY MODE

02/17/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,755	Applicant(s) ZHAO ET AL.	
	Examiner Vivian Chen	Art Unit 1787	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8-23,25-27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 and 20-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,13-19,25-27 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/1/10</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 2-7, 24, 28, 30-32 have been cancelled by Applicant.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/7/2010 has been entered.

Claim Objections

3. Claim 20 is objected to because of the following informalities:

The status identifier for claim 20 is incorrect -- the proper status identifier of claim 20 is "(Withdrawn)(Currently Amended)" because it is directed to a non-elected species and thereby withdrawn from consideration.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 1, 13-19, 25-27, 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. The disclosure as originally filed is directed to very limited means of modifying a surface to achieve the recited matching of LW surface free energy (i.e., three specific coatings as set forth in claim 7) within a limited range of LW surface free energy values. Furthermore, with respect to the recited Ag--PTFE-surfactant and Ni--Cu--P—PTFE coatings, the disclosure as originally filed fails to enable one of ordinary skill in the art to adjust the LW surface free energy of various surfaces by means of said Ag--PTFE-surfactant and Ni--Cu--P—PTFE coatings as to achieve the required match with the LW surface free energy of various particles for the systems (i.e., surfaces, environments, and particles) recited in the claims. Therefore, the disclosure as originally filed fails to enable one of ordinary skill in the art to make or use the invention as presently claimed.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 13-19, 25-27, 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 13, 16-19 are vague and indefinite because of the inconsistent and confusing use of single hyphens (i.e., -) and double hyphens (i.e., --) in the term "Ag--PTFE-surfactant". It is unclear whether the double hyphen is intended to indicate a relationship (e.g., chemical, compositional, structural, etc.) which is different from the relationship denoted by a single hyphen. It is noted that in the specification, only single hyphens are used (i.e., "Ag-PTFE-surfactant").

Claim 1 is vague and indefinite because of the inconsistent and confusing use of double hyphens (i.e., --) and em dashes (i.e., —) in the term "Ni--Cu--P—PTFE ". It is unclear whether the double hyphen is intended to indicate a relationship (e.g., chemical, compositional, structural, etc.) which is different from the relationship denoted by a single hyphen or the em dash. It is noted that in the specification, only single hyphens are used (i.e., "Ni-Cu-P-PTFE").

Response to Arguments

8. Applicant's arguments filed 7/7/2010 have been fully considered but they are not persuasive.

(A) Applicant argues that one of ordinary skill in the art would have been capable of modifying the LW free surface energy of a surface via applying one of the three recited types of coatings to said surface to render the LW free surface energy of said surface equal to or approximately equal to the LW free surface energy of the recited biological particles in the recited living biological environment surrounding that surface. However, while the Applicant has presented evidence that one of ordinary skill in the art would be able to calculate the free surface energy of various biological particles in a liquid living biological environment and

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evidence that one of ordinary skill in the art would be able to controllably modify the free surface energy of DLC-type coatings, Applicant has not provide any evidence on the record with respect to the ability of one of ordinary skill in the art to modify other types of coatings besides DLC (i.e., Ag--PTFE-surfactant and Ni--Cu--P—PTFE coatings).

MPEP 716.01(c) [R-2] Probative Value of Objective Evidence

>I. < TO BE OF PROBATIVE VALUE, ANY OBJECTIVE EVIDENCE SHOULD BE SUPPORTED BY ACTUAL PROOF

Objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence of unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant. See, for example, *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984) (“It is well settled that unexpected results must be established by factual evidence.” “[A]ppellants have not presented any experimental data showing that prior heat-shrinkable articles split. Due to the absence of tests comparing appellant’s heat shrinkable articles with those of the closest prior art, we conclude that appellant’s assertions of unexpected results constitute mere argument.”). See also *In re Lindner*, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1972); *Ex parte George*, 21 USPQ2d 1058 (Bd. Pat. App. & Inter. 1991).

>II. < ATTORNEY ARGUMENTS CANNOT TAKE THE PLACE OF EVIDENCE

The arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant.

See MPEP § 2145 generally for case law pertinent to the consideration of applicant’s rebuttal arguments.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (571) 272-1506. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho, can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

The General Information telephone number for Technology Center 1700 is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 28, 2011

/Vivian Chen/

Primary Examiner, Art Unit 1787